Appl. No. 10/774,310 Amdt. dated September 23, 2005 Reply to Office Action of June 24, 2005

Amendments to the Specification:

Please replace paragraph [0005] with the following amended paragraph:

[0005] A spring assist folding knife and method of biasing a blade in a folding knife are described and claimed herein. The folding knife can include a blade, liner, and handle. The blade can include a first recess for receiving a pivot pin. The blade can also include a second recess offset from the axis of rotation. A latch cam having an offset pin can be located relative to the second recess. The liner can include an arcuate slot in which the offset pin of the latch cam can be located. The arcuate slot within the liner or handle can also include a convex extension. A spring can be configured to provide a force in the direction of blade opening and can provide the force throughout the entire range of blade motion. The spring can apply its force to the offset pin to bias the blade in the closed position until the blade reaches a predetermined angle. Then the spring can exert a force to open the blade to a fully open position.

Please replace paragraph [0029] with the following amended paragraph:

[0029] As the blade 310 rotates in the opening direction, the latch cam 342 340 initially rotates in an opposite direction. Thus, if the blade 310 is rotated clockwise, as shown in Figures 2A-2G from a closed position to an open position, the latch cam 342 340 initially rotates in a counterclockwise direction. As the latch cam 340 rotates in the direction opposite the rotation of the blade 310, the pin 342 on the latch cam 340 rotates away from the end of the convex extension 324 and towards the arcuate slot 322.

Please replace paragraph [0031] with the following amended paragraph:

[0031] The flipper 312 can be configured such that when the flipper 312 is flush with the handle of the knife 300, the pin 342 is substantially within the arcuate groove 322 and the rotational force of the torsional spring 330 is no longer impeded by the walls of the convex extension 324. Alternatively, the flipper 312 can be configured such that the pin 342 is substantially within the arcuate groove 322 and the rotational force of the torsional spring 330 is no longer impeded by the walls of the convex extension 324 before the edge of the flipper 312 is flush with the handles of the knife 300. In the embodiment where the rotational force of the torsional spring 330 is no longer impeded by the walls of the convex extension 324 before the

edge of the flipper 312 is flush with the handles of the knife 300, the user can ensure spring 330 assisted opening of the blade 330 310 by pressing the flipper flush with the handles of the knife 300. In still other embodiments, the flipper 312 can be configured such that the pin 342 is substantially within the arcuate groove 322 and the rotational force of the torsional spring 330 is no longer impeded by the walls of the convex extension 324 after the edge of the flipper 312 is below the outline of the handles of the knife 300. In the embodiment where the rotational force of the torsional spring 330 is no longer impeded by the walls of the convex extension 324 after the edge of the flipper 312 is below the outline of the handles of the knife 300, additional external force may need to be applied to the blade 310 before the spring 330 can apply sufficient force to open the blade to the fully open position.

Please replace paragraph [0035] with the following amended paragraph:

[0035] Figures 3A-3D show views of an embodiment of a folding knife 300. Only portions of the knife 300 are shown for purposes of clarity. Figure 3A shows a folding knife 300 having substantially the same features as the embodiment shown in Figures 2A-2G. The knife includes a blade 310 having a hole or recess for receiving a latch cam 340. The knife 300 also includes the latch cam 340 within the hole of the hole in the blade 310. The latch cam 340 includes a pin 342 that is offset relative to an axis of rotation of the latch cam 340. A flipper 312 is positioned on the blade 310 substantially on the same side of the blade 310 as the sharpened edge. A safety latch 304 is shown in the safety or locked position. The knife also includes a liner 320. Figure 3A shows the folding knife 300 with the blade 310 in the closed position. A reference line 301 is shown in the figure and is defined as the line extending from the blade rotation axis through the tip of the blade 310 when the blade 310 is in the closed position. The reference line 340 will be used to discuss the angular rotation of the blade 310 in Figures 3B-3D.

Please replace paragraph [0036] with the following amended paragraph:

[0036] When the blade 310 is in the closed position, the pin 342 of the latch cam 340 is positioned substantially within the convex extension (not shown in this view). The spring 330 exerts a force on the pin 342 of the latch cam 340 in the direction that opens the blade 310. However, as discussed in FIGS. 2B, the wall of the convex extension (not shown in this figure) impedes the rotation of the blade 310.

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Please replace paragraph [0037] with the following amended paragraph:

[0037] Figure 3B shows a view of the knife 300 with the blade 310 partially open. The blade 310 has rotated clockwise relative to the reference line 301. The line extending from the blade axis of rotation through the tip of the blade 310 defines an angle with the reference line 301. Rotating the blade 310 moves the position of the pin 342 on the latch cam 340. At a predetermined angle shown in Figure 3B, the pin 342 on the latch cam 340 has repositioned to a position on the convex extension 324 that meets the arcuate slot 322. When the blade 310 rotates less than the predetermined angle, the walls of the convex extension 324 impede the force that the spring 330 exerts against the pin 342. When the blade 310 rotates greater than the predetermined angle, the walls of the convex extension 324 no longer impede the force that the spring 330 exerts against the pin 342. Thus, when the blade 310 is rotated greater than the predetermined angle, the pin 342 is no longer positioned substantially within the convex extension 324. Instead, the blade 310 pin 342 is positioned substantially within the arcuate slot 322.

Please replace paragraph [0044] with the following amended paragraph:

[0044] Left and right hand liners 320a and 320b are positioned on the left and right hand sides of the blade 310. In the embodiment shown in FIG. 4A, the left hand liner includes an arcuate slot 322a having a convex extension 324a at one end of the arcuate slot 322a Similarly, the right hand liner 320b includes an arcuate slot 322b having a convex extension 324b positioned at one end of the arcuate slot 322b. Additionally, the right hand liner 422 320b includes a liner lock 422, which can be a spring portion of the liner 320b that secures the blade 310 in the open position when the blade 310 is completely open.

Please replace paragraph [0046] with the following amended paragraph:

[0046] The left torsional spring 330a can have one end located within a receiving hole (not shown) in the left handle 420a. The other end of the left torsional spring 330a can be configured to mechanically couple to the left hand pin of the latch cam 342 340. Thus, the left hand torsional spring 330a applies a force against the left pin of the latch cam 340 in a direction to drive the blade 310 to a fully open position. The torsional springs 330a and 330b thus indirectly apply a force to the blade 310 via the latch cam 340.

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Please replace paragraph [0056] with the following amended paragraph:

[0056] A blade 310 includes a hole 402 configured to receive the latch cam 402 340. The hole 402 is offset from an axis of rotation and is positioned such that the pin 342 of the latch cam 340 can be positioned within the arcuate slot 322 or convex extension 324 when the knife is assembled.